

California Department of Public Health  
Viral and Rickettsial Disease Laboratory

Jan 29, 2013

# Mumps Virus Specimen Collection and Specimen Submittal Form

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ DOB: \_\_\_\_/\_\_\_\_/\_\_\_\_ Medical Rec #: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: Home (\_\_\_\_) \_\_\_\_\_ Work (\_\_\_\_) \_\_\_\_\_

**Sex:** ☐ Male ☐ Female **Ethnicity:** ☐ Hispanic ☐ Non-Hispanic ☐ Unknown

**Race:** ☐ White ☐ Black ☐ Asian/ Pacific Islander ☐ American Indian/Alaskan Native ☐ Unknown ☐ Other: \_\_\_\_\_

## Physician Information:

Name: \_\_\_\_\_ Facility: \_\_\_\_\_ Pager/Phone: (\_\_\_\_) \_\_\_\_\_

Date of first symptom(s): \_\_\_\_/\_\_\_\_/\_\_\_\_ ☐ Hospitalized or ☐ ER / Outpatient

If hospitalized, admit date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Discharge date: \_\_\_\_/\_\_\_\_/\_\_\_\_ If patient died, date of death: \_\_\_\_/\_\_\_\_/\_\_\_\_

## Clinical syndrome:

Swelling of parotid gland ☐ Yes ☐ No ☐ Unk

If yes, give date of onset of parotid swelling: \_\_\_\_/\_\_\_\_/\_\_\_\_

Swelling of sublingual or submaxillary glands ☐ Yes ☐ No ☐ Unk

Fever ☐ Yes ☐ No ☐ Unk

URI symptoms (e.g. cough, sore throat) ☐ Yes ☐ No ☐ Unk

Asymptomatic ☐ Yes ☐ No ☐ Unk

Other, please describe \_\_\_\_\_

## Complications (e.g. orchitis, meningitis/encephalitis):

## History of clinical mumps

(prior to current illness): ☐ Yes ☐ No ☐ Unk

## Vaccination History:

# of doses (lifetime) of mumps containing vaccine received: \_\_\_\_\_

## Vaccination Dates (if known):

\_\_\_\_/\_\_\_\_/\_\_\_\_ \_\_\_\_/\_\_\_\_/\_\_\_\_ \_\_\_\_/\_\_\_\_/\_\_\_\_

## Reason if not vaccinated:

## Exposures/Travel within 4 wks of onset (specify details):

Traveled outside of California: ☐ Yes ☐ No ☐ Unk

If yes, where: \_\_\_\_\_

Contacts/exposures: \_\_\_\_\_

Disease suspected or test requested:

	Specimen type and/or specimen source	Date Collected
1 <sup>st</sup>		

	Specimen type and/or specimen source	Date Collected
2 <sup>nd</sup>		

## Submitter's Complete Mailing Address

**This section for Virus Laboratory use only.**  
**Date received by VRDL and State Accession Number**

1<sup>st</sup>

2<sup>nd</sup>

Dongxiang Xia, MD, Ph.D. D(ABMM), SV(ASCP), Chief  
Viral and Rickettsial Disease Laboratory  
Division of Communicable Disease Control  
California Department of Public Health  
850 Marina Bay Parkway  
Richmond, CA 94804  
phone (510) 307-8585 fax (510) 307-8599

Route to:

[ ] VPDHV  
[ ] RGDS  
[ ] FA  
[ ] RAB  
[ ]

[ ] BE  
[ ]  
[ ] \_\_\_\_\_

[ ] \_\_\_\_\_  
[ ] \_\_\_\_\_  
[ ] \_\_\_\_\_

[ ]  
[ ]

Submitting Physician: \_\_\_\_\_ Secure Fax # for reporting results: (\_\_\_\_) \_\_\_\_ - \_\_\_\_

NOTE: Guidelines for Specimen Collection, Processing and Shipping are on the back of this form.

**FAX this form: (510) 307-8578 or MAIL to: CDPH VRDL, 850 Marina Bay Parkway, Richmond CA 94804**

For questions regarding testing or specimens, call VRDL at 510.307.8585



## CDPH Viral and Rickettsial Disease Laboratory (VRDL) Specimen Collection Guidelines for Mumps Virus Testing

The CDPH Viral and Rickettsial Disease Laboratory (VRDL) encourages submission of specimens from suspected cases of mumps in California. Laboratory diagnosis can be made either by isolation of mumps or detection of nucleic acid from respiratory specimens or by serologic testing.

**Appropriate specimens** for testing include: buccal or oral swabs and serum. Collection of serum samples in pediatric patients is optional.

**NOTE:** Urine samples are not routinely recommended – Call VRDL for a consultation before collecting or submitting a urine sample. Urine samples received without prior consultation will not be tested.

**Mumps Serology** - VRDL currently has both EIA and IFA assays available to measure mumps IgG and IFA for IgM; IgM results must be interpreted with caution since false positive or non-specific reactions are known to occur<sup>1</sup>.

Collect 7-10 ml of blood in a red top or serum separator tube. If initial testing is negative and mumps is strongly suspected, a convalescent serum should be collected 2-3 weeks after symptom onset. The gold standard remains the demonstration of a significant change (4-fold rise) in IgG titer between the acute and convalescent samples.

**Mumps Isolation and direct detection by PCR** can be attempted from buccal or oral swabs collected within 9 days of onset of parotitis.

Buccal swabs are the preferred respiratory specimen. To collect a buccal specimen, massage the parotid gland area (between cheek and teeth inside mouth just below the ear) on each side of the face for about 30 seconds prior to collection of the secretions. Use a plain Dacron swab and rub the inside of each cheek with the same swab for 10 seconds. Sweep the swab between the upper and lower molar areas on each side of the mouth. Place swab in sterile tube with 2-3 ml viral transport medium or sterile isotonic solution. ***Do not place in Amies or Stuart transport media since these contain viral inhibitory substances.***

Specimens should be stored at 4°C and shipped on wet ice or cold pack as soon as possible.

- Respiratory specimens can be held at 4°C for 24 hours before shipping. Otherwise, the specimens should be frozen at -70°C and shipped on dry ice.
- If VRDL approves submission of urine samples (see above), ideally urine specimens should be sent within 24 hours of collection. Otherwise, urine should be centrifuged at 2,500 times g for 15 minutes at 4°C to pellet the sediment. The sediment should then be resuspended in 2-3 ml of VTM or any cell culture medium and shipped at 4°C. If the pelleted specimens cannot be shipped within 48 hours, the pellet should be frozen at -70°C and shipped on dry ice, if necessary.

<sup>1</sup> False-positive IgM results by commercial immunofluorescent antibody assays have been reported. If the suspected case has received one or more doses of MMR, missing, delayed or transient IgM responses may also be seen. There are currently no FDA-approved EIAs for detection of mumps IgM antibody.

**Please contact VRDL: 510.307.8585 if you have any questions**